

ABSTRACT OF THE DISCLOSURE

A substrate for a perpendicular magnetic recording medium has a soft magnetic underlayer that functions as a soft magnetic backing layer of a perpendicular magnetic recording medium. The substrate for a perpendicular magnetic recording medium has a nonmagnetic base made of Al-Mg alloy or the like. The soft magnetic underlayer is formed of a Ni-P alloy containing phosphorus in a range of 0.5 wt% to 6 wt% formed by electroless plating on the nonmagnetic base. The substrate can also include a nonmagnetic underlayer formed by electroless plating on the base before electroless plating the soft magnetic underlayer. To form the perpendicular magnetic recording medium, the surface of the soft magnetic is textured using free abrasive grains. Thereafter, a nonmagnetic seed layer, a magnetic recording layer, and a protective layer can be formed by sputtering. A soft magnetic supplemental layer also can be formed on the soft magnetic underlayer before forming the seed layer.